

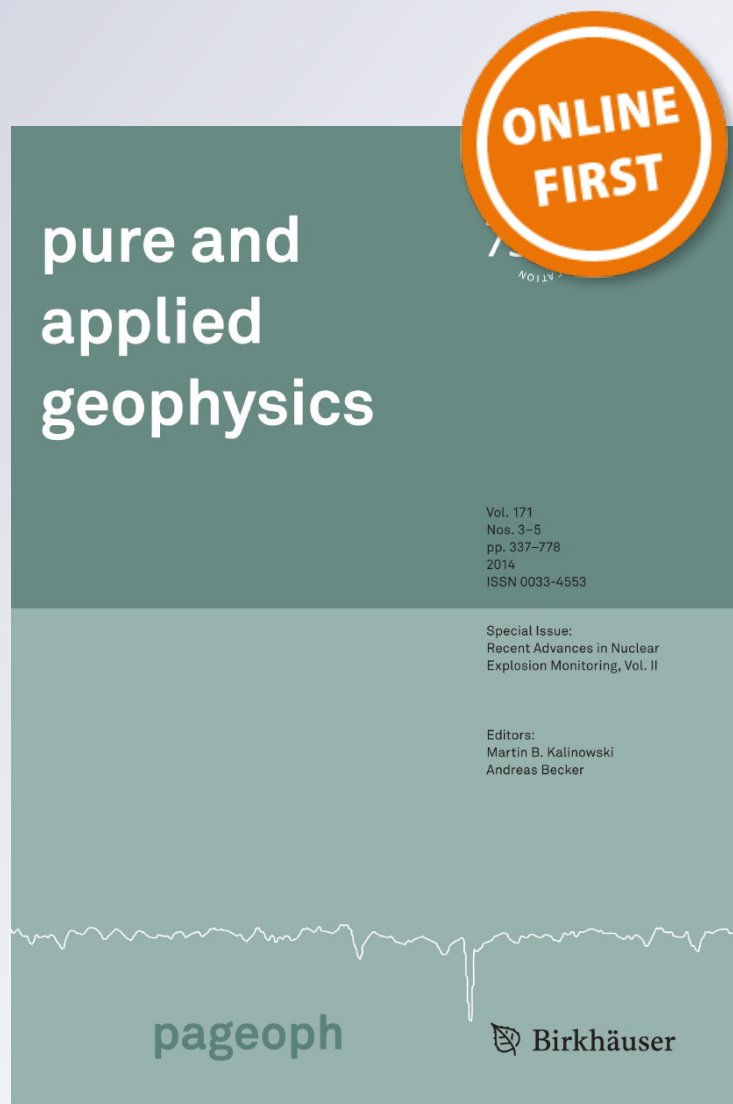
Book Review

Yann Klinger

Pure and Applied Geophysics
pageoph

ISSN 0033-4553

Pure Appl. Geophys.
DOI 10.1007/s00024-014-0812-0



Your article is protected by copyright and all rights are held exclusively by Springer Basel. This e-offprint is for personal use only and shall not be self-archived in electronic repositories. If you wish to self-archive your article, please use the accepted manuscript version for posting on your own website. You may further deposit the accepted manuscript version in any repository, provided it is only made publicly available 12 months after official publication or later and provided acknowledgement is given to the original source of publication and a link is inserted to the published article on Springer's website. The link must be accompanied by the following text: "The final publication is available at link.springer.com".

Book Review

The Great Wenchuan Earthquake of 2008: a Photographic Atlas of Surface Rupture and Related Disaster
 by A. Lin and Z. Ren, Springer, 2010; ISBN: 978-3-642-03758-0, USD 139.00

YANN KLINGER¹

On May 12, 2008, one of the largest continental earthquakes struck the Sichuan province, China. The Wenchuan thrust fault, located in the Long Men Shan, at the eastern edge of the Tibetan plateau, broke over about 300 km as an earthquake of magnitude M_w 7.9. Loss of lives and destruction of infrastructure were massive, bringing the area into chaos, as such a large event was not anticipated and the Long Men Shan mountain front had often been deemed tectonically of low activity.

Coseismic displacements of landforms or man-made features have been measured in numerous places along the surface ruptures, and they reached as much as 6.5 m vertically and 4.9 m horizontally. Associated to the earthquake, they were also many definitive changes in the landscape morphology, such as new waterfalls and massive land-sliding. In that respect, the Wenchuan earthquake provides a rare opportunity to observe how natural forces work to build long term mountain topography during earthquakes.

Because such major earthquakes do not happen often, detailed descriptions and images of coseismic surface ruptures are not common. The photographic

atlas of the surface rupture and related disaster by A. Lin and Z. Ren constitutes a useful archive of field photos (~59 photos) that illustrate various aspects of the coseismic deformation in a context of thrust fault. This set of photos can be used for teaching purposes, and for self-education of any earth-scientist, who is not familiar with thrust faults. One could actually regret that the photos are not available digitally as well, so as to be readily incorporated in lectures. The book also contains a brief section at the beginning that broadly summarizes the geological context and the main characteristics of the earthquake, although any reader interested in a more in-depth understanding of this event will have to refer to the large body of literature published about the earthquake since 2008. In the last two sections, the authors present, respectively, photos of damage to infrastructure and buildings, and photos of the relief operations. Although these photos are probably less significant in a scientific perspective, they constitute a strong reminder of the need for continuous earthquake hazard mitigation in densely populated active tectonic regions worldwide.

¹ Tectonique-Bureau 208, Institut de Physique du Globe-UMR7154, 1, rue Jussieu, 75238 Paris Cedex 05, France. E-mail: klinger@ipgp.fr